

Traffic Signals and Pedestrians

Updates and Discussion

PAC Program & Policy Subcommittee

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Topics for Today

- Context
- Leading Pedestrian Intervals (LPI)
- Pedestrian Recall
- Feedback, Questions, and Discussion

Context

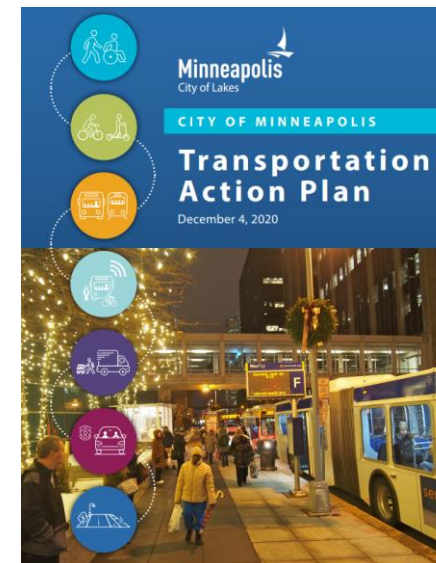
Context

Vision Zero Action Plan

“Make traffic signal operations changes to support City goals for safety, Complete Streets, and mobility”

Transportation Action Plan

Strategies and Actions within Walking, Transit, Street Operations



Context



Context

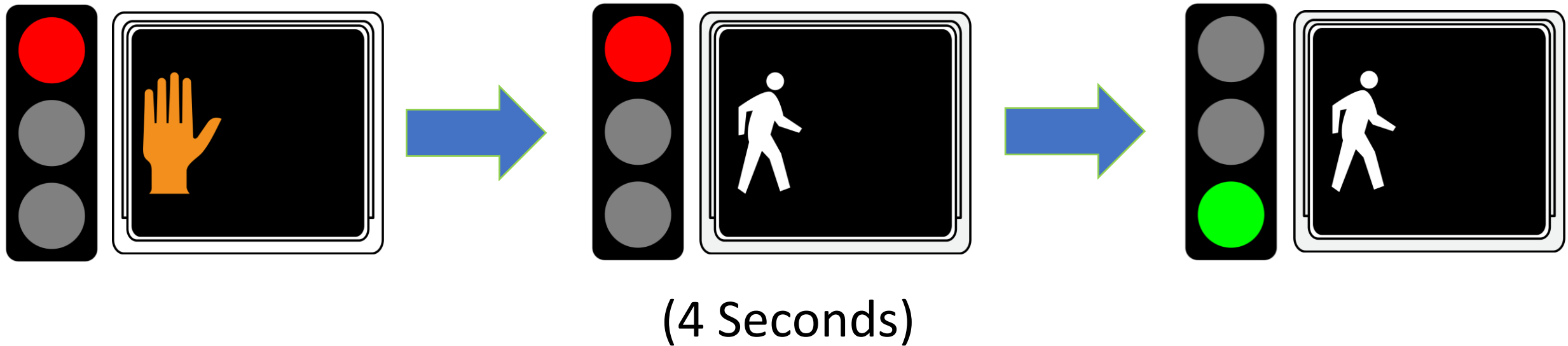
Other ongoing signal priorities

- Yellow reflective backplates
- Countdown timers
- Accessible Pedestrian Signals (APS)
- Touchless Buttons

Citywide Traffic Signal Retiming: 2025



Leading Pedestrian Intervals (LPI)



Leading Pedestrian Intervals (LPI)

- Establishes pedestrian presence in crosswalk before vehicles
- Most beneficial for conflicts with turning vehicles (particularly left)
- Proven safety countermeasure
 - Variation in observed crash reduction potential

Leading Pedestrian Intervals (LPI)

Comprehensive citywide approach to LPI

Key Considerations:

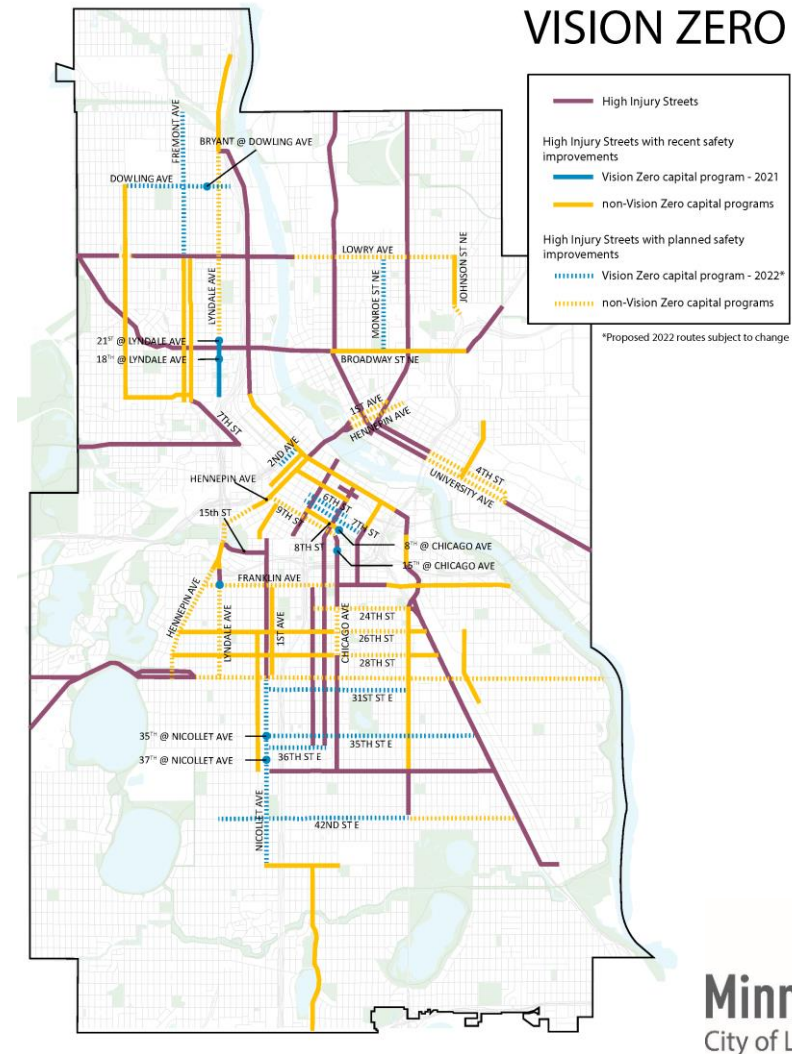
- Accessible Pedestrian Signals (APS)
- Left turn phasing (arrows)
- BRT/LRT service routes
- Other pedestrian priority treatments
- Signal technology/capabilities
- Existing signal timing



Leading Pedestrian Intervals (LPI)

2023 Implementation

- Vision Zero Corridors
- Approximately 30 intersections in first group
 - Dowling Ave N
 - Fremont Ave N
 - 31st Street
 - 36th Street (+ 35th Street)
 - Plymouth Ave N
 - Bloomington Ave S
- Mostly LPI to cross major roadway
- Testing two treatments
 - LPI every cycle
 - LPI upon pushbutton actuation



Leading Pedestrian Intervals (LPI)

Next Steps

- Observe 2023 installations
- Refine approach and installation types
- Additional LPI installations at recent signal upgrades (APS)
- Consider LPI with all ongoing signal upgrades
- LPI interaction with Pedestrian Recall
- Citywide retiming project

Pedestrian Recall

Pedestrian Recall

Current Considerations

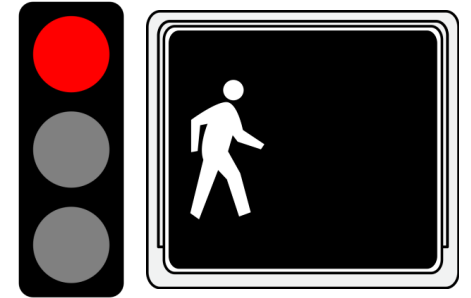
- COVID recalls
- Multiple TAP Actions
- Transit Signal Priority (BRT + others)
 - D Line now in service
 - Ped recall limits transit advantage
 - Evolving discussions with Metro Transit



Pedestrian Recall

Proposed Updates

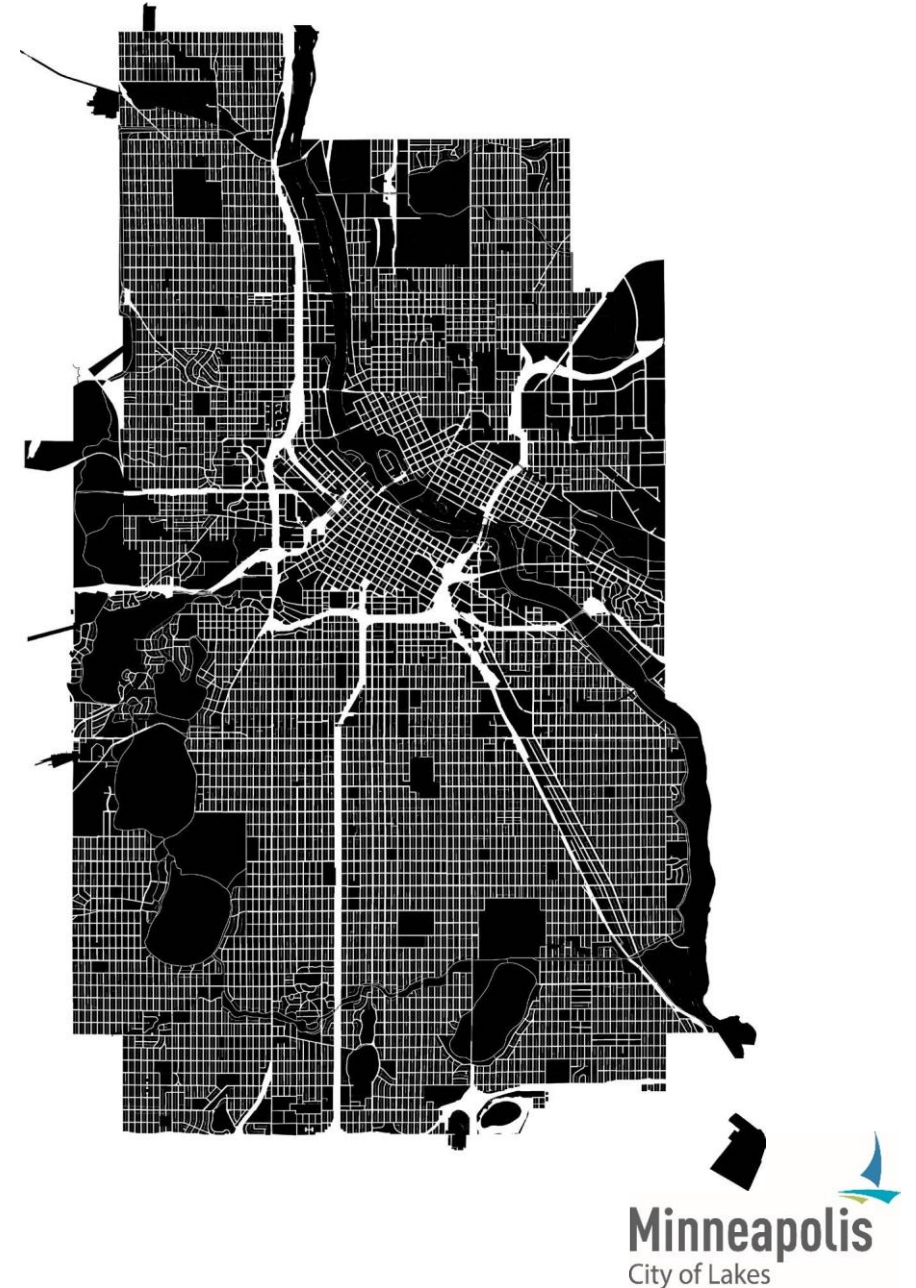
- Implement pre-COVID actuation where pedestrian recall limits existing Transit Signal Priority (TSP) performance
 - Pedestrian actuation typically only needed to cross the transit route
- Evaluate locations for “Free” operation, providing faster response time to button actuations
- Evaluate and expand LPI where pedestrian recall changes are occurring
- Monitor operations and develop a combined LPI/Recall strategy with citywide retiming project



What's Next

Citywide Traffic Signal Retiming

- Preparation 2023
- Analysis 2024
- Implementation 2025



Feedback and Discussion

Thank you!